

## Product datasheet for **RG227703**

### **RASGRP3 (NM\_001139488) Human Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                           |
| Product Name:             | RASGRP3 (NM_001139488) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                      |
| Symbol:                   | RASGRP3                                       |
| Synonyms:                 | GRP3  |
| Mammalian Cell Selection: | Neomycin                                      |
| Vector:                   | pCMV6-AC-GFP (PS100010)                       |
| E. coli Selection:        | Ampicillin (100 ug/mL)                        |



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ORF Nucleotide  
Sequence:

>RG227703 representing NM\_001139488  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGGATCAAGTGGCCTTGGGAAAGCAGCAACATTAGATGAACTGCTGTGCACTTGCATTGAGATGTTTG  
ATGACAATGGAGAGCTGGATAATAGTTATTTGCCAAGAATAGTTCTACTGATGCACCGATGGTATTTATC  
TTCACACTGAATTGGCAGAAAACTTCTCTGCATGTATCGAAATGCCACTGGAGAAAAGCTGCAATGAATTT  
CGATTAAGATCTGCTACTTTCATGAGGACTGGATTCTGAAGTTTCTGCAGAGTTTAAATTTGGATCTTG  
GTTTGATTGATGACTGAGGAATTTGGGAAAGTACTAGTCAACTAGGATATGAAAAACACGTCAGCCT  
CATCGACATATCCAGCATTCTTCTATGACTGGATGAGAAGAGTCACACAGAGGAAAAAAGTATCCAAG  
AAGGGAAAAGCCTGTCTGCTGTTTGACCATCTGGAGCCCATTGAATTGGCTGAGCACCTCACTTTTCTGG  
AGCATAAATCTTTAGAAGGATCTCATTCACTGATTACCAAAGCTATGTCATCCATGGCTGCCTGGAGAA  
TAATCCAACCTTGGAAAGATCGATTGCTTTATTTAATGGAATCTCTAAGTGGGTCCAGTTGATGGTTCTT  
AGCAAACCAACCCCCAGCAAAGGGCAGAAGTCATCACAAAGTTTATCAATGTTGCAAAGAAGCTCCTTC  
AGCTCAAAAAATTTAACACCCTGATGGCAGTGGTGGGAGGCCCTCAGTCATAGTTCATTTACGCTCAA  
AGAGACCCATTCTCATCTTTCTCAGAAGTTACAAAGAAGTGAATGAAATGACAGAGTTGGTCTCCTCC  
AACGGCAATTACTGCAATTACCGCAAGGCCCTTGGCCGACTGCGATGGCTTCAAAATCCCCATCCTTGGAG  
TACACTTGAAAGACTTGATAGCTGTCCATGTCAATTTCCAGACTGGACAGAGGAGAACAAAGTGAACAT  
TGTGAAAATGCACCAGCTCTCCGTTACCCTGAGTGAAGTACTCCTGCAGAAATGCCTCTCACCCTTA  
GAACCAACATGGATTTGATCAACCTGCTCAGCCTTCCCTGGACCTCTATCACACTGAAGATGATATTT  
ACAAACTGTCACCTGGTGGTGGAGCCTAGAAATTTAAATCGCAGCCTACCTCCCCTACGACGCCCAACAA  
GCCTGTGGTACCCCTGGAGTGGGCATTAGGGGTGATGCCAAAGCCAGACCCACGGTCATCAACAAGCAC  
ATAAGGAAATTAGTGGAGTCTGTATTTAGAAACTATGATCACGACCATGATGGGTACATTTCCCAAGAGG  
ACTTTGAAAGTATAGCTGCCAATTTTCCCTTCTTGGATTCCTTGTGTTCTGGACAAAGATCAGGATGG  
CCTAATTAGTAAAGATGAAATGATGGCTTACTTCTGAGAGCTAAATCCCAACTACACTGTAAAATGGGA  
CCAGGATTTATCCATAATTTTCCAGGAGATGACCTATCTCAAGCCAACCTTCTGCGAACACTGTGCGGGAT  
TTCTCTGGGGCATAATCAAGCAAGGATACAAATGCAAAGACTGTGGAGCCAATTGCACAAACAGTGCAA  
AGACCTCCTGGTCTGGCCTGCAGGAGATTTGCCCGGGCGCCCTCCTTGAGCAGTGGTCATGGGTCACTG  
CCTGGAAGCCCCTCGCTGCCCCAGCGCAGGATGAGGTGTTGAGTTCCTGGAGTCACTGCTGGACACA  
GGGATTTAGACAGCAGAGCCATCACACTGGTTACAGGCTTCTCGCAAGATCTCTGTGAGGCTACAGAG  
GGCCACCACCAGCCAGGCCACCCAGACTGAACCTGTCTGGTCAGAGGCTGGCTGGGGGACTCGGGGTCC  
CACACCTTCCCTAAAATGAAATCCAAGTTCATGACAAAGCAGCAAAGGACAAAGGCTTTGCCAAATGGG  
AAAATGAGAAGCCAGGGTGCATGCTGGTGTGGATGTTGTAGACCGGGGCACGGAGTTTGAACCTTGACCA  
GGATGAAGGAGAAGAGACCAGACAGGATGGTGAGGATGGC

**ACGCGT**ACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG227703 representing NM\_001139488  
 Red=Cloning site Green=Tags(s)

MGSSGLGKAATLDELLCTCIEMFDDNGELDNSYLPRIVLLMHRWYLSSTELA EKLLCMYRNATGESCNEF  
 RLKICYFMRWILKFPFAEFNLDLGLIRMTEEFREVASQLGYEKHVSLEIDISSIPSYDWMRRVTQRKKVSK  
 KGKACLLFDHLEPIELAEHLTFLEHKSFRRIISFTDYQSYVIHGCLENNPTLERSIALFNIGISKWVQLMVL  
 SKPTPQQRAEVIITKFINVAKLLQLKNFNLTMAVVGGLSHSSISRLKETHSHLSSEVTKNWNEMTELVS  
 NGNYCNYRKAFAADCDGFKIPILGVHLKDLIAVHVIFPDWTEENKVNIVKMHQLSVTLSELVSLQNASHHL  
 EPNMDLINLLTSLDLYHTEDDIYKLSLVLEPRNSKSQPTSPPTPNKPVVPLEWALGVMPKPDPTVINKH  
 IRKLVESVFRNYDHDHDGYISQEDFESIAANFPFLDSFCVLDKDKDQGLISKDEMMAYFLRAKSQLHCKMG  
 PGFIHNFQEMTYLKPTFCEHCAGFLWGIKQGYCKDCGANCHKQCKDLLVLACRRFARAPSLSSGHGSL  
 PGSPSLPPAQDEVFEFPGVTAGHRDLDSRAITLVTGSSRKISVRLQRATTSQATQTEPVWSEAGWGDGSGS  
 HTFFPKMKSKFHDKAAKDKGFAKWEKPRVHAGVDVDRGTEFELDQDEGEETRQDGEDG

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001139488

**ORF Size:** 2070 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001139488.2](#)

**RefSeq Size:** 4798 bp

**RefSeq ORF:** 2073 bp

**Locus ID:** 25780

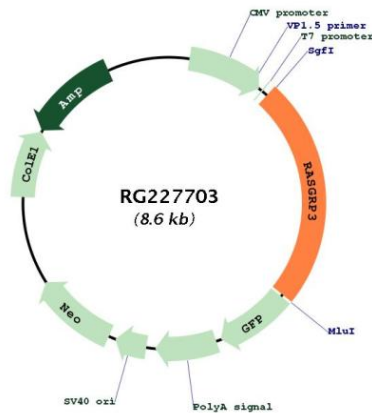
**UniProt ID:** [Q8IV61](#)

**Cytogenetics:** 2p22.3

**Protein Pathways:** B cell receptor signaling pathway, MAPK signaling pathway

**Gene Summary:** The protein encoded by this gene is a guanine nucleotide exchange factor that activates the oncogenes HRAS and RAP1A. Defects in this gene have been associated with systemic lupus erythematosus and several cancers. [provided by RefSeq, Mar 2017]

**Product images:**



Circular map for RG227703